

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

April 15, 2011

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Gasco Property, 7900 NW St. Helens Avenue, Portland, Oregon

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural that have occurred relating to the Gasco property during the month of March 2011. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In email correspondence dated March 1, 2011 (Dana Bayuk to Ben Hung), DEQ requested information on the topics and issues that NW Natural intended to discuss during the March 3, 2011 meeting to discuss riverbank coordination issues and the beneficial water use determination as related to Gasco.

In e-mail correspondence dated March 1, 2011 (Ben Hung to Dana Bayuk), NW Natural provided DEQ with a draft agenda for a March 3, 2011 meeting to discuss riverbank coordination issues and the beneficial water use determination as related to Gasco.

A meeting with DEQ, EPA, and NW Natural occurred on March 3, 2011 to discuss coordination of development of remedial alternatives for the riverbank area under the EPA order with the upland risk assessment. A meeting with DEQ and NW Natural was conducted immediately following the riverbank meeting to discuss the beneficial water use determination for the locality of facility. In e-mail correspondence dated March 8, 2011 (Dana Bayuk to Bob Wyatt), DEQ provided NW Natural with its summary understanding of the path forward with regard to the riverbank and the beneficial water use determination update. DEQ also provided clarifications regarding expectations for a March 17 meeting with NW Natural to discuss risk assessment issues.

In e-mail correspondence dated March 9, 2011 (Rob Ede to Dana Bayuk), NW Natural summarized a telephone call with DEQ in which the submittal date for the *RI Data Summary Report-Historical MGP Activities, Siltronic Corporation Property*, was extended by approximately 2 weeks to March 31, 2011.

In e-mail correspondence dated March 10, 2011 (Taku Fuji to Dana Bayuk), NW Natural provided meeting materials to DEQ. The meeting materials included a meeting agenda, risk screening summaries by exposure area and exposure media, data summaries of site COIs by exposure area and exposure media, surface water screening table, and a

figure with upland sampling locations. The meeting materials were provided for discussion at a meeting scheduled for March 17 as related to the Gasco upland Risk Assessment.

In e-mail correspondence dated March 14, 2011 (Rob Ede to Dana Bayuk), NW Natural provided notice to DEQ regarding pending field activities (First Quarter 2011 groundwater monitoring), scheduled to commence on March 17, 2011 at the Gasco and Siltronic properties.

In e-mail correspondence dated March 15, 2011 (Dana Bayuk to Taku Fuji), DEQ provided a summary of understanding and questions regarding Gasco upland Risk Assessment-related meeting materials that were provided by NW Natural to DEQ on March 10.

In e-mail correspondence dated March 16, 2011 (Dana Bayuk to Rob Ede), DEQ provided acknowledgement of NW Natural's March 14 notification of upcoming field activities.

In email correspondence dated March 16, 2011 (Ben Hung to Dana Bayuk), NW Natural proposed canceling the monthly Gasco meeting scheduled for March 21, 2011, because a meeting with DEQ on the Gasco upland Risk Assessment was scheduled for the next day, March 17, 2011. In addition, NW Natural was in the process of completing the Gasco upland Source Control design based on the meeting held with DEQ on February 2, 2011, and no agency meetings were planned prior to submittal of the design document.

In email correspondence dated March 16, 2011 (Dana Bayuk to Ben Hung), DEQ agreed with NW Natural's recommendation to cancel the monthly Gasco meeting scheduled for March 21, 2011.

A meeting with DEQ and NW Natural technical teams occurred on March 17, 2011 to discuss completion of the Gasco upland Risk Assessment.

In email correspondence dated March 17, 2011 (Ben Hung to Dana Bayuk), NW Natural requested a timeframe for receiving a list of topics that DEQ agreed to provide and expected NW Natural to include in the March 17, 2011 Gasco upland Risk Assessment meeting summary and next steps document.

In email correspondence dated March 17, 2011 (Dana Bayuk to Ben Hung), DEQ declined to provide a timeframe for sending a list of topics to NW Natural and indicated that the March 17, 2011 Gasco upland Risk Assessment meeting summary and next steps document should be submitted on March 23, 2011 regardless of receiving any input from DEQ prior to submittal.

In e-mail correspondence dated March 17, 2011 (Ben Hung to Dana Bayuk), NW Natural provided comments to DEQ for consideration regarding DEQ's February 24 revisions to the Meeting Summary document prepared by NW Natural after the February 3, 2011 Source Control Design meeting.

In e-mail correspondence dated March 21, 2011 (Ben Hung to Dana Bayuk), NW Natural proposed pushing back the due date for the March 17, 2011 Gasco upland Risk Assessment meeting summary and next steps document, primarily to allow for incorporation of preliminary DEQ feedback.

In e-mail correspondence dated March 21, 2011 (Ben Hung to Dana Bayuk), NW Natural summarized a telephone call in which DEQ declined to extend the deadline for the

March 17, 2011 Gasco upland Risk Assessment meeting summary and next steps document. The e-mail clarified and itemized the deliverables in addition to the meeting summary and next steps document to be provided on March 23, 2011 and requested DEQ confirmation that NW Natural's understanding of the deliverables to be provided on March 23, 2011 was correct.

In e-mail correspondence dated March 21, 2011 (Dana Bayuk to Ben Hung), DEQ confirmed that NW Natural's understanding of the deliverables to be provided on March 23, 2011 was correct.

In e-mail correspondence dated March 23, 2011 (Dana Bayuk to Ben Hung and Taku Fuji), DEQ provided expectations for NW Natural deliverables related to the March 17, 2011 Gasco upland Risk Assessment meeting and to the upland human health and ecological risk assessments for Gasco, generally.

In e-mail correspondence dated March 23, 2011 (Ben Hung to Dana Bayuk), NW Natural provided DEQ with deliverables as agreed to during the March 17, 2011 Risk Assessment meeting. The deliverables included the draft meeting summary; COI data summary statistics for groundwater; and data sets used for generating summary statistics for soil.

The NW Natural document *Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property, Portland Oregon*, dated March 31, 2011 was submitted to DEQ by ftp site upload, with notification (Rob Ede to Dana Bayuk) on March 31, 2011.

2.0 Field Work

Field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during March. The system recovered approximately 59 gallons of fluids (primarily DNAPL) during March.

Discharge of treated water (groundwater from the LNG containment basin) to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2012). Results of NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least every other month in accordance with the permit. As of March 31, 2011, a total of 5,113,082 gallons of treated water have been discharged to the sanitary sewer in 2011.

Field testing of the source control pilot extraction well pumps PW-7, 8, and 9 was initiated in March. The purpose of the testing is to evaluate the performance of the variable frequency drive pumping system.

Groundwater elevation measurements were collected from all accessible monitoring wells on both the Gasco and Siltronic properties on March 17, 2011 as part of the NW Natural first quarter 2011 groundwater monitoring event. Groundwater samples were collected as part of this monitoring event from wells at the Siltronic property from March 21 through March 23, 2011 and from wells at the Gasco property from March 28 through March 31, 2011. All monitoring activities were completed as per the groundwater monitoring program as described in the NW Natural *First and Second Quarter 2010 Environmental Monitoring Report*, dated January 14, 2011.

3.0 Anticipated Activities in April and May 2011

NW Natural is preparing several Risk Assessment-related deliverables as discussed during the March 17 meeting with DEQ and as summarized in the draft Meeting Summary document. These additional deliverables, primarily data tabulations and screening tables) will be submitted to DEQ in April.

NW Natural is working on an update to the beneficial use determination for groundwater and anticipates submittal of this document to DEQ in late April or early May.

NW Natural is working on the groundwater source control design, with the design document to be submitted to DEQ for review in May.

Wet season surface water sampling within Doane Creek, as part of NW Natural RI activities related to the Siltronic property, is anticipated to occur during the April and May timeframe.

The following reports and work plans on the Site have been submitted to DEQ for review and comment. No DEQ comments on these documents have been received.

- Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site, February 19, 2009, Anchor QEA.
- Evaluation of potential method produced biases associated with available cyanide method OIA-1677, August 14, 2009, Anchor QEA.
- Gasco Upland – Proposal on Risk Methods, June 21, 2010, Anchor QEA.
- Intent to dispose of non-hazardous petroleum-contaminated IDW soils generated by NW Natural on the Siltronic Corporation property, August 5, 2010, HAI.
- Recommendations for cyanide testing at the Gasco Site, August 17, 2010, Anchor QEA.
- Remedial Investigation Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Corporation Property, March 31, 2011, HAI.

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Ede", with a stylized flourish extending from the end.

Rob Ede, R.G.
Principal

robe@hahnenv.com

c: Ms. Sandra Hart, NW Natural (electronic only)
Mr. Bob Wyatt, NW Natural (electronic only)

Ms. Patty Dost, Pearl Legal Group PC (electronic only)
Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
Mr. Henning Larsen, DEQ NW Region (electronic only)
Mr. Tom Gainer, DEQ NW Region (electronic only)
Mr. Tom McCue, Siltronic Corporation (electronic only)
Ms. Kristine Koch, Region 10 EPA (electronic only)
Mr. Sean Sheldrake, Region 10 EPA (electronic only)
Mr. Rene Fuentes, Region 10 EPA (electronic only)
Mr. Eric Blischke, Region 10 EPA (electronic only)
Mr. Chip Humphrey, Region 10 EPA (electronic only)
Mr. Lance Peterson, CDM, Inc. (electronic only)